



# D-Mannose/D-Fructose/D-Glucose Assay kit

Kit SIS (Safety Information Sheet)

Issue date: 05/06/2013

Revision date: 11/04/2022

Supersedes: 24/01/2020

Version: 1.5

## SECTION 1: Kit identification

### 1.1. Kit identifier

Product name : D-Mannose/D-Fructose/D-Glucose Assay kit  
Product code : K-MANGL

### 1.2. Details of the supplier of the Kit safety information sheet

Megazyme  
Bray Business Park  
A98 YV29 Bray - Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://www.megazyme.com)

## SECTION 2: General information

This product is a Kit which consists of several independently packaged components

This Kit should be handled in accordance with good laboratory practices and appropriate personal protective equipment should be used

## SECTION 3: Kit contents

Name	General description	Quantity	Unit	Classification according to Regulation (EC) No. 1272/2008 [CLP]
D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 1)	Reagent	1	pcs (pieces)	Eye Irrit. 2, H319

No substance or mixture included in the following Kit components is hazardous according to Regulation (EC) No. 1272/2008 [CLP] and therefore the requirements of Regulation (EU) 2015/830 do not apply

Name	General description	Quantity	Unit
D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 2)	Reagent	1	pcs (pieces)
D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 3)	Reagent	1	pcs (pieces)
D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 4)	Reagent	1	pcs (pieces)
D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 5)	Reagent	1	pcs (pieces)
D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 6)	Reagent	1	pcs (pieces)

## SECTION 4: General advice

No data available

## SECTION 5: Safe handling advice

Environmental precautions : Avoid release to the environment  
Storage conditions : Store in a well-ventilated place.  
Keep cool.  
Precautions for safe handling : Ensure good ventilation of the work station  
Wear personal protective equipment

## SECTION 6: First aid measures

First-aid measures after eye contact : Rinse eyes with water as a precaution  
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
First-aid measures after skin contact : Wash skin with plenty of water  
Other medical advice or treatment : Treat symptomatically

## SECTION 7: Fire fighting measures

# D-Mannose/D-Fructose/D-Glucose Assay kit

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Protection during firefighting	:	Do not attempt to take action without suitable protective equipment Self-contained breathing apparatus Complete protective clothing
Hazardous decomposition products in case of fire	:	Toxic fumes may be released

### SECTION 8: Other information

No data available



# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 6)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Issue date: 05/06/2013 Revision date: 14/03/2022 Supersedes version of: 20/12/2017 Version: 1.3

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 6)  
Product code : K-MANGL (Bottle 6)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only  
Use of the substance/mixture : Use as laboratory reagent

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Megazyme  
Bray Business Park  
A98 YV29 Bray - Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://www.megazyme.com)

#### 1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH032 - Contact with acids liberates very toxic gas.

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 6)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 6)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:					
Protective gloves					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

Eye protection:			
Safety glasses			
Type	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

Skin and body protection:	
Wear suitable protective clothing	
Type	Standard
Lab coat	

Respiratory protection:			
In case of insufficient ventilation, wear suitable respiratory equipment			
Device	Filter type	Condition	Standard
Dust mask	Type P1	Protection for Liquid particles	EN 143, EN 149

#### Personal protective equipment symbol(s):



#### Environmental exposure controls:

Avoid release to the environment.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 6)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: No data available
Odour	: None.
Odour threshold	: No data available
pH	: 10
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 6)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Skin corrosion/irritation	: Not classified pH: 10
Serious eye damage/irritation	: Not classified pH: 10
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IATA
<b>14.1. UN number</b>	
Not applicable	Not applicable

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 6)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 14.2. UN proper shipping name

Not applicable

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

Not applicable

### 14.4. Packing group

Not applicable

Not applicable

### 14.5. Environmental hazards

Not applicable

Not applicable

No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Full text of H- and EUH-statements:

EUH032

Contact with acids liberates very toxic gas.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 5)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Issue date: 05/06/2013 Revision date: 14/03/2022 Supersedes version of: 20/12/2017 Version: 1.3

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 5)  
Product code : K-MANGL (Bottle 5)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only  
Use of the substance/mixture : Use as laboratory reagent

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Megazyme  
Bray Business Park  
A98 YV29 Bray - Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://www.megazyme.com)

#### 1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 5)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 5)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:					
Protective gloves					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

Eye protection:			
Safety glasses			
Type	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

Skin and body protection:	
Wear suitable protective clothing	
Type	Standard
Lab coat	

Respiratory protection:			
In case of insufficient ventilation, wear suitable respiratory equipment			
Device	Filter type	Condition	Standard
Dust mask	Type P1	Protection for Liquid particles	EN 143, EN 149

#### Personal protective equipment symbol(s):



#### Environmental exposure controls:

Avoid release to the environment.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 5)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: No data available
Odour	: None.
Odour threshold	: No data available
pH	: 10
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 5)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Skin corrosion/irritation	: Not classified pH: 10
Serious eye damage/irritation	: Not classified pH: 10
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IATA
<b>14.1. UN number</b>	
Not applicable	Not applicable

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 5)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 14.2. UN proper shipping name

Not applicable

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

Not applicable

### 14.4. Packing group

Not applicable

Not applicable

### 14.5. Environmental hazards

Not applicable

Not applicable

No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

No additional information available

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Issue date: 05/06/2013 Revision date: 14/03/2022 Supersedes version of: 20/12/2017 Version: 1.3

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 4)  
Product code : K-MANGL (Bottle 4)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only  
Use of the substance/mixture : Use as laboratory reagent

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Megazyme  
Bray Business Park  
A98 YV29 Bray - Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://www.megazyme.com)

#### 1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH032 - Contact with acids liberates very toxic gas.

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:					
Protective gloves					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

Eye protection:			
Safety glasses			
Type	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

Skin and body protection:	
Wear suitable protective clothing	
Type	Standard
Lab coat	

Respiratory protection:			
In case of insufficient ventilation, wear suitable respiratory equipment			
Device	Filter type	Condition	Standard
Dust mask	Type P1	Protection for Liquid particles	EN 143, EN 149

#### Personal protective equipment symbol(s):



#### Environmental exposure controls:

Avoid release to the environment.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: milky.
Odour	: None.
Odour threshold	: No data available
pH	: 10
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Skin corrosion/irritation	: Not classified pH: 10
Serious eye damage/irritation	: Not classified pH: 10
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IATA
<b>14.1. UN number</b>	
Not applicable	Not applicable

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 14.2. UN proper shipping name

Not applicable

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

Not applicable

### 14.4. Packing group

Not applicable

Not applicable

### 14.5. Environmental hazards

Not applicable

Not applicable

No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Full text of H- and EUH-statements:

EUH032

Contact with acids liberates very toxic gas.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Issue date: 05/06/2013 Revision date: 14/03/2022 Supersedes version of: 20/12/2017 Version: 1.3

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 3)  
Product code : K-MANGL (Bottle 3)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only  
Use of the substance/mixture : Use as laboratory reagent

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Megazyme  
Bray Business Park  
A98 YV29 Bray - Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://www.megazyme.com)

#### 1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH208 - Contains Kinase (phosphorylating), hexo-, Hexokinase. May produce an allergic reaction.  
EUH210 - Safety data sheet available on request.  
EUH032 - Contact with acids liberates very toxic gas.

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:					
Protective gloves					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

Eye protection:			
Safety glasses			
Type	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

Skin and body protection:	
Wear suitable protective clothing	
Type	Standard
Lab coat	

Respiratory protection:			
In case of insufficient ventilation, wear suitable respiratory equipment			
Device	Filter type	Condition	Standard
Dust mask	Type P1	Protection for Liquid particles	EN 143, EN 149

#### Personal protective equipment symbol(s):



#### Environmental exposure controls:

Avoid release to the environment.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: milky.
Odour	: None.
Odour threshold	: No data available
pH	: 10
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Skin corrosion/irritation	: Not classified pH: 10
Serious eye damage/irritation	: Not classified pH: 10
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IATA
<b>14.1. UN number</b>	
Not applicable	Not applicable

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 14.2. UN proper shipping name

Not applicable

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

Not applicable

### 14.4. Packing group

Not applicable

Not applicable

### 14.5. Environmental hazards

Not applicable

Not applicable

No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Full text of H- and EUH-statements:

EUH032	Contact with acids liberates very toxic gas.
EUH208	Contains Kinase (phosphorylating), hexo-, Hexokinase. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Issue date: 05/06/2013 Revision date: 14/03/2022 Supersedes version of: 24/01/2020 Version: 1.4

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 2)  
Product code : K-MANGL (Bottle 2)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only  
Use of the substance/mixture : Use as laboratory reagent

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Megazyme  
Bray Business Park  
A98 YV29 Bray - Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://www.megazyme.com)

#### 1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:					
Protective gloves					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

Eye protection:			
Safety glasses			
Type	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

Skin and body protection:	
Wear suitable protective clothing	
Type	Standard
Lab coat	

Respiratory protection:			
In case of insufficient ventilation, wear suitable respiratory equipment			
Device	Filter type	Condition	Standard
Dust mask	Type P1	Protection for Liquid particles	EN 143, EN 149

#### Personal protective equipment symbol(s):



#### Environmental exposure controls:

Avoid release to the environment.

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Colourless.
Odour	: None.
Odour threshold	: No data available
pH	: 10
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: Not applicable
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Skin corrosion/irritation	: Not classified pH: 10
Serious eye damage/irritation	: Not classified pH: 10
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IATA
<b>14.1. UN number</b>	
Not applicable	Not applicable

# D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 14.2. UN proper shipping name

Not applicable

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

Not applicable

### 14.4. Packing group

Not applicable

Not applicable

### 14.5. Environmental hazards

Not applicable

Not applicable

No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

No additional information available

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannose/D-Fructose/D-Glucose Assay kit (Bottle 1)  
Product code : K-MANGL (Bottle 1)

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only  
Use of the substance/mixture : Use as laboratory reagent

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

Megazyme  
Bray Business Park  
A98 YV29 Bray - Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://www.megazyme.com)

### 1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 2 H319  
Full text of H-statements: see section 16

#### Adverse physicochemical, human health and environmental effects

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning  
Hazard statements (CLP) : H319 - Causes serious eye irritation.  
Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling.  
P280 - Wear eye protection, protective clothing, protective gloves.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
EUH-statements : EUH032 - Contact with acids liberates very toxic gas.  
Labelling according to: exemption for packages of a capacity of 125ml or less

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Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

EUH-statements

EUH032 - Contact with acids liberates very toxic gas.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Triethanolamine substance with national workplace exposure limit(s) (IE)	(CAS-No.) 102-71-6 (EC-No.) 203-049-8 (REACH-no) 01-2119486482-31	10 – 20	Not classified
MAGNESIUM CHLORIDE	(CAS-No.) 7786-30-3 (EC-No.) 232-094-6 (REACH-no) 01-2119485597-19	1 – 5	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318
sodium azide substance with a Community workplace exposure limit	(CAS-No.) 26628-22-8 (EC-No.) 247-852-1 (EC Index-No.) 011-004-00-7	< 0.1	Acute Tox. 2 (Oral), H300 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.  
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Triethanolamine (102-71-6)

#### Ireland - Occupational Exposure Limits

Local name	Triethanolamine
OEL (8 hours ref) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>

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### sodium azide (26628-22-8)

#### EU - Occupational Exposure Limits

Local name	Sodium azide
IOELV TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
IOELV STEL (mg/m <sup>3</sup> )	0.3 mg/m <sup>3</sup>
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

#### 8.2. Exposure controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### Hand protection:

Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

##### Eye protection:

Safety glasses

Type	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

##### Skin and body protection:

Wear suitable protective clothing

Type	Standard
Lab coat	

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Device	Filter type	Condition	Standard
Dust mask	Type P1	Protection for Liquid particles	EN 143, EN 149

##### Personal protective equipment symbol(s):



##### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: None.

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Odour threshold	: No data available
pH	: 10
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### Triethanolamine (102-71-6)

LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 6400 mg/kg bodyweight; Rat)
LD50 oral	8000 mg/kg bodyweight

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LD50 dermal rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit)
LD50 dermal	> 10000 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 1.8 mg/l

### MAGNESIUM CHLORIDE (7786-30-3)

LD50 oral rat	2800 mg/kg
LD50 oral	2800 mg/kg bodyweight

Skin corrosion/irritation	: Not classified pH: 10
Serious eye damage/irritation	: Causes serious eye irritation. pH: 10
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

### Triethanolamine (102-71-6)

IARC group	3 - Not classifiable
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Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### Triethanolamine (102-71-6)

LC50 fish 1	11800 mg/l
LC50 fish 2	450 – 1000 mg/l (LC50; 96 h; <i>Lepomis macrochirus</i> )
EC50 other aquatic organisms 1	2038 mg/l waterflea
EC50 other aquatic organisms 2	216 mg/l

### MAGNESIUM CHLORIDE (7786-30-3)

LC50 fish 1	1970 – 3880 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static])
EC50 Daphnia 1	140 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i> [Static])
EC50 other aquatic organisms 1	548.4 mg/l waterflea
EC50 other aquatic organisms 2	> 100 mg/l

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EC50 72h algae (1)	2200 mg/l (Species: Desmodesmus subspicatus)
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### 12.2. Persistence and degradability

#### Triethanolamine (102-71-6)

Persistence and degradability	Photolysis in the air. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.02 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.5 g O <sub>2</sub> /g substance
ThOD	2.04 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.02 % ThOD

#### MAGNESIUM CHLORIDE (7786-30-3)

Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

### 12.3. Bioaccumulative potential

#### Triethanolamine (102-71-6)

BCF fish 1	< 3.9 (Cyprinus carpio; TEST DURATION: 6 WEEKS)
Partition coefficient n-octanol/water (Log Pow)	-2.53 – -1.32
Bioaccumulative potential	Bioaccumulation unlikely.

#### MAGNESIUM CHLORIDE (7786-30-3)

Bioaccumulative potential	No bioaccumulation data available.
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### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IATA
<b>14.1. UN number</b>	
Not applicable	Not applicable

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### 14.2. UN proper shipping name

Not applicable

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

Not applicable

### 14.4. Packing group

Not applicable

Not applicable

### 14.5. Environmental hazards

Not applicable

Not applicable

No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Full text of H- and EUH-statements:

Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Met. Corr. 1	Corrosive to metals, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H290	May be corrosive to metals.

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H300	Fatal if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.